Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (previously presented) A method of forming an assembly of optical components, comprising:

providing a mold;

positioning a first component in the mold;

positioning a second component in the mold; and

applying a formable material into the mold to form a waveguide for carrying light between the first and second components, the waveguide forming an optical path between the first component and the second component, at least one of the first or second components including a laser or other active optical component.

2. (currently amended) The method of claim 1 in which ~~at least~~ one of the first or second components is an optical fiber or other passive optical component.

3. (cancelled)

4. (original) The method of claim 1 further comprising removing the first component, the second component, and the waveguide from a mold used to form the waveguide by providing a support structure to support the first component, the second component, and the waveguide as it is removed.

5. (original) The method of claim 4 in which the support structure is adhered to the first component, the second component, and the waveguide.

6. (original) The method of claim 5 in which the support structure is molded onto the first component, the second component, and the waveguide.

7. (original) The method of claim 6 in which providing a support structure includes molding a cladding material to form the support structure.

8. (original) The method of claim 5 in which the support structure includes a sticky surface and in which the support structure is adhered to the first component, the second component, and the waveguide by contacting to the sticky surface.

9. (original) The method of claim 1 further comprising applying a second formable material into the mold to clad the waveguide material.

10. (original) The method of claim 9 in which applying the second formable material includes applying the material to fix the first and second component together in alignment.

11. (original) The method of claim 10 further comprising inserting a substrate element into the mold and in which applying the second formable material includes applying the second formable material to fix the first and second components onto the substrate.

12. (original) The method of claim 9 in which applying the second formable material includes applying the material to form an enclosure or other protecting, supporting or subsequent aligning structure.

13. (original) The method of claim 9 in which a third formable material is applied to form an enclosure or other protecting, supporting or subsequent aligning structure.

Claims 14-18 (cancelled)

19. (previously presented) A method of forming a light-carrying optical waveguide

assembly, comprising:

providing a tool having a pattern to be transferred to a light-carrying optical waveguide, the tool aligning an optical component relative to the waveguide pattern;

forming the optical waveguide aligned with the optical component by shaping a formable material using the tool;

hardening the formable material to produce a waveguide aligned with the component; and

after the formable material is hardened, applying a formable cladding material over the optical waveguide.

20. (previously presented) A method of forming an optical waveguide assembly,

providing a tool having a pattern to be transferred to a light-carrying optical waveguide, the tool aligning an optical component relative to the waveguide pattern;

forming the optical waveguide aligned with the optical component by shaping a formable material using the tool; and hardening the formable material to produce a waveguide aligned with the component; and

removing the optical waveguide from the tool by adhering the optical waveguide to a support structure.

21. (original) The method of claim 20 in which adhering the optical waveguide to a support structure includes molding a support structure onto the optical waveguide.

22. (original) The method of claim 20 in which adhering the optical waveguide to a support structure includes contacting a prefabricated molded support structure onto the optical waveguide.

23. (original) The method of claim 20 in which either the support structure or the waveguide is incompletely cured when the optical waveguide is adhered to the support structure.

Claims 24-37 (cancelled)

38. (previously presented) A method of terminating an optical fiber, comprising:

inserting the optical fiber into a mold; and

inserting into the mold a formable light-carrying material, the light-carrying material contacting the optical fiber and forming a light path to or from the optical fiber, the light path including two ends, a proximal end carrying light to or from the optical fiber and a distal end formed into a connecting structure having an optical axis and a connecting surface through which light is carried to a connecting component, the connecting surface being oriented at an angle of between 0 degrees and 55 degrees from a normal to the optical axis.

Claims 39-44 (cancelled)

45. (previously presented) A method of forming a light-carrying waveguide, comprising:

providing a precision mold having there in a cavity corresponding to the desired shape of the waveguide;

inserting a formable material into the cavity of the precision mold, the formable material taking on at least in part the shape of the cavity to form the waveguide;

hardening the waveguide; and

removing the waveguide from the precision mold.

46. (original) The method of claim 45 in which removing the waveguide from the precision mold includes providing a support structure to adhere to the waveguide as it is

removed.

47. (original) The method of claim 46 in which providing a support structure to adhere to the waveguide includes molding a support structure onto the waveguide.

48. (original) The method of claim 47 in which molding a support structure onto the waveguide includes molding a cladding material onto the waveguide.

49. (original) The method of claim 46 in which the support structure includes a sticky surface and in which the support structure is adhered to the waveguide by contacting to the sticky surface.

50. (original) The method of claim 45 further comprising applying a second formable material into the mold to clad the waveguide material.

51. (original) A waveguide formed in accordance with the method of claim 45.

52. (previously presented) The method of claim 1 in which positioning the laser or other active optical component includes using bumps associated with electrical contacts on the component.

53. (previously presented) The method of claim 1 in which positioning the laser or other active optical component includes using bumps, pins, precision laser-drilled or micro-machined holes associated with electrical contacts on the component.

54. (previously presented) The method of claim 1 in which positioning the laser or other active optical component includes using precision location features provide by the component manufacturer.

55. (previously presented) The method of claim 1 in which positioning a first component

in the mold includes positioning a single mode optical fiber in the mold.

56. (currently amended) A method of forming an assembly of optical components, comprising:

positioning a first component in a mold;

positioning a second component in ~~a~~ the mold; and

applying a formable material into the mold to form a light-carrying waveguide between the first and second components, the waveguide forming an optical path between the first component and the second component,

removing the first component, the second component, and the waveguide from a mold used to form the waveguide by providing a support structure to support the first component, the second component, and the waveguide as it is removed.

57. (previously presented) The method of claim 56 in which the support structure is adhered to the first component, the second component, and the waveguide.

58. (previously presented) The method of claim 57 in which the support structure is molded onto the first component, the second component, and the waveguide.

59. (previously presented) The method of claim 58 in which providing a support structure includes molding a cladding material to form the support structure.

60. (previously presented) The method of claim 56 in which the support structure includes a sticky surface and in which the support structure is adhered to the first component, the second component, and the waveguide by contacting to the sticky surface.

61. (new) The method of claim 56 in which:

positioning a first component in a mold or positioning a second component in the mold includes aligning an active optical element using an alignment structure; and

applying a formable material into the mold to form a light-carrying waveguide between the first and second components includes applying a formable material into the mold to form a light-carrying guide to the active optical component, the light carrying waveguide guide being sufficiently aligned with the active optical element to eliminate the need for active alignment.

62. (new) The method of claim 56 in which applying a formable material into the mold includes injecting the formable material under pressure into a mold cavity.

63. (new) The method of claim 56 in which applying a formable material into the mold includes screening or stenciling the formable material into depressions on a mold plate.

64. (new) The method of claim 61 in which the light carrying waveguide guide is aligned with the active optical element to within 5 microns.

65. (new) The method of claim 61 in which the light carrying waveguide guide is aligned with the active optical element to within 3 microns.

66. (new) A method of making an optical assembly, comprising:

providing a precision mold having an alignment structure within the mold for aligning at least one active optical element and having a structure for forming a light-carrying waveguide to the at least one optical element;

positioning the at least one active optical component within the precision mold using the alignment structure;

filling the structure for molding a light-carrying waveguide to the at least one optical

element with a waveguide forming material; and

removing the precision at least one optical element and the light-carrying waveguide from the precision mold, the alignment structure providing sufficiently accurate alignment to eliminate the requirement for active alignment.

67. (new) The method of claim 66 in which filing the structure for molding a light-carrying waveguide includes injecting a wave guide forming material under pressure.

68. (new) The method of claim 66 in which filing the structure for molding a light-carrying waveguide includes screening or stenciling a wave guide forming material onto a mold plate.

69. (new) The method of claim 66 in which removing the at least one optical element and the light-carrying waveguide from the precision mold includes removing the at least one optical element and the light-carrying waveguide adhered to a support structure.

70. (new) The method of claim 69 in which the support structure is molded over the at least one optical element and the light-carrying waveguide.